

# MECHELECIV

VOL. 30 NO. 2



THE SCHOOL OF ENGINEERING & APPLIED SCIENCE  
THE GEORGE WASHINGTON UNIVERSITY

MECHELECIV

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DOUBT . . .

PUNT

SIGNED

THE STAFF

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This issue is dedicated to the students, faculty and staff of the Engineering School.

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The Staff.

EDITOR: A. Jeyanathan  
ASSISTANTS: Abid Kamran, Henry Longword

## From the Office of the Dean

We are living in a highly developed technological world. Increasing populations, the exhaustion of our natural resources and the requirements of national defense are the major factors governing the world's activities today and in the foreseeable future. We have cities to rebuild, energy systems to construct, transportation systems to renovate. We need to modernize our industrial establishment to compete more effectively in world markets. Agricultural production must be expanded and distribution improved to feed growing populations. These societal needs result in an increasing demand for engineers trained in the most modern methods of science and technology.

The School of Engineering and Applied Science is constantly striving to provide a high quality engineering education. Our entrance requirements have been raised and we are now enrolling better students. The 1982 SAT scores averaged 1150 which is a 10 point increase over 1981 and 260 points higher than the national average of college bound high-school students. 21% of the School of Engineering and Applied Science students were in the top 5% of their class. 75% were in the top 30%. We are constantly updating our curricula, equipment and facilities. The emphasis in the School will continue in such areas as computer science and those programs utilizing the computer, communications, systems analysis and modelling, computer aided design and quality control, and instructional television, in addition to our traditional engineering programs.

The Secretary of the Navy has awarded George Washington University, in competition with a large number of universities, a Naval Reserve Officers Training Unit. This program will begin in the 1984-85 academic year. Eventually, the program will include 200-300 full-time undergraduates, all of whom will be very high caliber students.

Our sponsored research program this year consisted of 83 contracts and grants awarded by the Army, Navy, Air Force, National Science Foundation, other government agencies and industry. These grants totaled some \$7,000,000. They provide opportunities for employment and advanced study and training.

Other activities include an active Industrial Liaison Program, Continuing Engineering Education Program which consists of 570 courses presented to 10,000 practicing engineers and scientists, and an industry-university cooperative education program which provides valuable work experience to our students.

Although the School has made significant progress during the past decade, we are not without problems. We need additional space to accommodate growth in the student body, faculty and research activities. We need to provide a wholesome educational and research environment. We are concerned with rising costs of providing an excellent technical education and a high quality faculty.

With the cooperation of the students, faculty, alumni and friends we will achieve future academic excellence.

Dean Harold Liebowitz

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FROM THE ENGINEERS COUNCIL

The Council takes this opportunity to acknowledge its appreciation of commitments of the Dean on the following issues:

A. To make student evaluation of courses mandatory in the School of Engineering;

B. To solicit student input in administrative and academic affairs;

C. To support the effort to recover monies belonging to the Engineers Council that were, as it seems, absorbed inadvertently by the University;

D. To support the Engineers Council in its effort to obtain a continuous account status, for its funds.

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There are numerous upcoming events scheduled for this month due to the fact that **ENGINEERS WEEK** falls on the 21st to the 26th of February. To assist the novice, seeking wisdom and truth in University events, **MECHELECIV** presents the **WATCHER'S GUIDE TO THE UNIVERSE(ITY)**. This is a see all tell all column that picks up on the bizzare, the interesting, the obscure, and the "not ready for prime time events" at GW. Any event mentioned here, if not appreciated by the student, is a "tough luck you got gyped" deal. If however we turn you onto something great we will cheerfully accept praise and gratitude. (Monetary considerations for our undying efforts will be handled at the rear entrance). And here now is the one and only **WATCHER'S GUIDE.....**

### **THE WATCHER'S GUIDE TO THE UNIVERSE(ITY)**

#### **ENGINEERS WEEK EVENTS:**

##### **TUESDAY, 22nd FEBRUARY**

##### **Westinghouse**

A complete 'HANDS ON' computer exhibit. Students are invited to 'check it out'.

Location: Marvin Center 406      Time: 8:00am - 1:00pm

##### **IBM**

A 'show and tell' session with prominent IBM engineers. If you want to find out what the world's largest computer company expects, this is your chance.

Location: Marvin Center 426      Time: 10:00am - 11:15am

**LECTURE: The Patent System's Place In The American Economy**

Mr. Gerald J. Mossinghoff, Commissioner of Patents and Trademarks speaks on the Patent System and how it operates in the American Economy. This is a must for those who intend to go into design, copyrights and patents are necessary to protect yourself and your company .

Location: Marvin Center 426      Time: 12:15pm - 1:30pm  
Sponsor: Alumni Association

**LECTURE: Contributions of Blacks to Technology**

The contributions of Blacks to the overall well being of all Americans is obvious. We will have the opportunity of listening to Dr. Caldwell McCoy speak on the achievements and contributions of the Black community in Technology.

Location: Marvin Center 426      Time: 3:00pm - 4:15pm  
Sponsor: BES (Black Engineers Society)

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THE  
WATCHER



## Satellite Business Systems (SBS)

Location: Marvin Center 404      Time: 8:00am - 1:00pm

This is another 'Show and Tell' session similar to the one with IBM. This is another opportunity for those in the communications field. Note that CSC also recruits other personnel and you should not be shy about asking for information regarding any field you are interested in.

Location: Marvin Center 426      Time: 10:00am - 11:15am

This is another introduction for students to the business world. This event will be very much in the same category as the IBM and CSC 'Show and Tell' sessions.

Loaction: Marvin Center 426      Time: 12:15pm - 1:30pm

LECTURE: Generating Realistic Images Using Computer Graphics.  
By: James D. Foley, Prof. of Electrical Engineering

A lecture on computer graphic techniques, with emphasis on the techniques used in making the movie TRON. There will be slides and viewgraph displays. Persons attending the lecture will receive free tickets to see the movie TRON to be shown later that evening.

Location: Marvin Center 426      Time: 4:30pm - 5:30pm  
  (Lecture)  
Building C 103                  Time: 9:30pm-11:30pm  
  (Movie)

Sponsored by: IEEE & THE PROGRAM BOARD

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THURSDAY, 24th FEBRUARY

## Nitre

A 'Show and Tell' session similar to those mentioned above.

Location: Marvin Center 402      Time: 10:00am - 11:15am

LECTURE: Robotics

A lecture on robotics is being planned for this time slot but at the time of publication no details were available. For further information see the HATCHET later this week or next for the ad by the ENGINEERS COUNCIL.

Location: To be arranged      Time: 12:15pm - 1:30pm

LECTURE/DEMO: The KYNSYN machine

Dr. Roger Kaufman demonstrates and talks about his KYNYSYN computer system. This is an APPLE II based system for synthesizing linkages. This is recommended for all students in the ME department. You may not be too terribly interested in this particular aspect of Mechanical Engineering, but this machine gives you an idea of the direction that engineering is taking. I speak of the marriage between Man and his computer, in the effort to solve the complex problems that challenge our minds today.

Location: Marvin Center 402      Time: 2:00pm - 4:00pm

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## FRIDAY, 25th FEBRUARY

This is the fun day of the week. This is where we take a break from the worries of school and enjoy ourselves with abandon. To tantalize your palate we present the following highly sophisticated events that challenge the mind, the body and the soul...by the way if your palate wasn't tantalized, TOUGH!!!

### The Egg Drop Contest

This is an annual event sponsored by the Engineers Council. The object of the event is to build a vehicle to transport a raw egg from the top of Tompkins Hall, to the target immediately below, in the shortest time. There are other considerations such as closeness of the point of impact to the center of the target, the distance between the final resting place of the vehicle and the center of the target and whether the EGG survives the drop.

The details and specifications for the vehicle are available from the Engineers Council Offices at the DH House and Rm 103 Tompkins Hall. Cash prizes will be awarded to the top three entries.

Location: Parking Lot Entrance Of Tompkins Hall

Time: 12:00noon - 4:00pm

Sponsored by The Engineers Council and The Egg Board

### TUG-----OF-----WAR

This is a new event included in this years Engineers Week. The contestants will be the EE's and OR's against the ME's and CE's. The WATCHER is partial to EE's so predicts an outstanding victory to the EE's much in the class of the **Washington Redskins**. To register to take part, contact the Engineers Council Office at the DH House. Be prepared though, there is rumour of a big mud puddle in the middle!!!!. Check the HATCHET and the Council Office for more inforamtion.

Location: DH House 22nd & G St.      Time: To be Arranged.

SATURDAY, 26th FEBRUARY

## THE ENGINEERS BALL

This is it. the social event of the year. Be there or be SQUARE as some people might say, not the Watcher of course. This year the Ball will be at the Labor Building on Constitution Avenue. The Ball features the band TOP FLIGHT and since the Watcher predicts that this ball is going to be a blast you better believe it! As usual you will receive invitations in the mail and you will be permitted to bring one guest. ID's will be checked for security purposes and invitations are necessary to enter the building.

Location: 6th Floor, Labor Building, Constitution Avenue.

Time: 8:30pm

Dress: Semi-Formal

The Watcher has attempted to bring you up to date on the activities for ENGINEERS WEEK and in so doing has worn even his omnipresent self and therefore regrets that more information could not be presented here and now. He wishes however to leave you with a semblance of what to expect this month, next month and beyond.....

## COMING TO THE UNIVERSE(ITY).....

The SPRING FLING.....A riotous time in the old campus that is hard to beat.

The ANNUAL SPRING PICNIC.....Organised by the ENGINEERS COUNCIL for all faculty and students. A great event, not to be missed. The Watcher will be there.Will you ?

CARNIVAL....This is a tradition at GEORGETOWN U that is great and should not be missed if possible.

This is the end. Even Photon Energy Q's cannot keep me going. Its time the Watcher returns to the Nth Dimension of the Time Space continuum. Never fear though for the Watcher is always near and hears the call of the masses. He will return in..... THE MECHELECIV VOL II ( with a bigger supply of PEQ's!!)

THE END

## Academic Dishonesty at GW

Academic dishonesty is not a new subject at any university. At an institution of higher learning, it would seem that the goal of the student should be to improve himself/herself and to obtain knowledge. Nonetheless, it seems to me that the emphasis on the 'paper qualification' has made this noble goal of seeking knowledge secondary, to the goal of obtaining a degree so as to obtain a good wage. I am not seeking an utopian institution, merely the semblance of it.

The individual goals of those who seek a higher education are their own. I do not presume to dictate or question their reasons but I do question the methods that some individuals use to obtain their degree. I speak of cheating your way through school.

Of late, I am seeing and hearing of more and more cases of academic dishonesty at SEAS. The students at this point are on the verge of becoming full fledged engineers. What is the use of a product that has a nice wrapping but has no substance. I wouldn't want someone like that to build the bridge I am to cross, or design a life support system.

The problem of academic dishonesty has escalated over the last year to epidemic proportions. Last semester alone I saw and heard more cases of cheating than during my first years at GW. I think it appalling that cheating occurs, but what is worse is that it is being ignored in some cases, even in the most blatant form. I'm sure that if someone talks during an exam, there's something not kosher about it. Borrowing material during an exam is sometimes unavoidable, but lets face facts if foreign languages are being spoken there is something fishy going on. The old adage that 'There is no smoke without fire' is a sad but true one.

To illustrate the sad state of affairs at GW let me give you a real life story that I have witnessed myself.

The story unfolds in a junior/senior level technical elective class on the day of the final. Since it is a reasonable size class, looking over the shoulder type cheating was not really significant. One student however found a suitable substitute for the missing 'buddy', his textbook. Of course this is a closed book examination, and the examiner has chosen incomplete examples in the book as part of the exam.

The student is seen with his book open and the instructor is informed that he is cheating by one of the students. The accused student adamantly denies the charge and instead accuses his accuser and a friend of a similar offence. I know for a fact that the student that now stands accused did not cheat. He doesn't even have a book to cheat from, he had been copying chapters from friends, me included.

On leaving the exam the guilty student confronts his accuser and the person who sat near him and questions why they turned him in. He admits that he was cheating but argues that he should not have been turned in and that their actions were ungentlemanly. He is abusive of his accusers, complains that he was not the only one cheating but goes no further as there are others nearby.

Lets face facts. If the instructor grades on any sort of curve, cheats skew the curve and it no longer serves its purpose. Cheats should be turned in, if not to preserve the integrity of the School and the education it imparts, then to prevent cheats from depriving you of the grade you deserve. The topping on the cake, so to speak, is that though the instructor had been told about an instance of cheating he did not warn the students in any way, nor did he indicate that he was keeping a watchful eye on the entire class.

I have spoken to the administration of the school regarding this problem. Dean Feir, the Associate Dean of SEAS takes a dim view of cheating as I'm sure do many of the faculty. the Dean's Office sends out, at the beginning of the semester a guideline to advisors and instructors as to the policies of SEAS and GW in general. Part of this package is the University Policy On Academic Dishonesty as we see printed in each issue of the bulletin. The implementation of this policy is difficult and the process of handling a case of academic dishonesty is cumbersome. The general feeling is therefore to implement means of forestalling academic dishonesty.

One of the ways in which the School has tried to help is by providing a proctor service. This service is available to all instructors with a large class size. The student proctors are paid to ensure that cheating does not occur. Are they effective? As far as I know most proctors do not take their job seriously and in some occasions I have heard complaints that proctors help students. Nevertheless this is one method to prevent cheating. I feel that the measure on the whole is helpful. One suggestion is that the proctors take their job seriously and the instructors make sure that proctors are informed that they are expected to do their job. One other suggestion is to have the students sit in class alphabetically during exams. This is a simple measure that could go a long way in forestalling the occurrence of academic dishonesty.

Other measures that may help is to have exams in larger rooms so that students are discouraged from cheating and for instructors to emphasize that they will take serious action against those caught in the act. What happens though if someone is accused of cheating?

Well the process is that the instructor brings a formal complaint against the student. It then becomes a quasi legal matter that is taken before the Deans Council. If at that level a decision is reached the student is then permitted to appeal to

the Board of Trustees. This procedure must be followed with witnesses appearing on behalf of the accuser and so on. It would probably take weeks and on occasions the witnesses have been warned off. Others do not want to get involved. It seems to me that the students have rights to representation and appeal but it also seems that this policy does not succeed in discouraging the student from cheating.

The university is in the process of reviewing this policy and hopefully they will seek input from student leaders. Although a member of the Engineers Council, I was unaware that this policy was being reviewed till informed by Associate Dean Feir. It would seem logical that the people that the policy pertains to be sought if changes are to be made. Being on the 'inside' so to speak, gives the students a better perspective of the situation and insight into what measures would help.

One idea that was brought up at a recent Council meeting was the feasibility of an Honor Code, similar to those implemented at such schools as Virginia Polytechnic. Perhaps this is not the best solution for our situation at GW but a hybrid scheme of Honor Code and student proctors is a definite possibility. The point is, **CHEATING IS UNGENTLEMANLY**, not turning someone in for cheating. If we want GW graduates to maintain their standard, cheating must be stopped as much as possible.

I hope that the university and the school will take into account the views of the students. Tau Beta Pi, the Engineering Honor Society and the Engineers Council are to good sources of such information.

A last word to the reader is that, cheating may get you the grade right now, but incompetence has a way of rearing its hideous head at the oddest times, and no one wants an incompetent working for or with them.



TRON : THE MOVIE

C 103, 9:30 PM

Feb 23rd. 1983

Accompanying lecture: Creating Realistic Images using Computer Graphics

MC Rm. 426, 4:30 PM

## ICE-CREAM EATING CONTEST

This will be the 2nd Annual Ice Cream Eating Contest organised by the ASCE(American Society of Civil Engineers) This event is usually a riot and if you just love eating gooey ice cream, this is for you. Watch it though, your partner feeding you is blindfolded and you will have your hands tied! Better have a partner you trust!! Details are available at the DH House and through the ASCE representatives. Check the HATCHET for more details later this week and next week.

Location: DH House, 22nd and G      Time: To be arranged

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## Viewpoint

Feb. 7.....damn. Three weeks already. God, where does the time go. I wish I had never started that stupid project. This will be the death of me for sure. Well.... I guess I had better cruise down to Radio Shack and pick up that kit for my senior project. But then again.. I've got two more months....I'll do it tomorrow.

And so it goes. Three months from now this engineering student will be in the job market looking for Mr. Techbar, while climbing that stack of super chips hoping to glimpse a ray from that fibre optics cable at the top of Corporate America.

And ahat will he have to prepare him for this? He has a degree certifying that he is one of the few that are good enough to be an **ENGINEER....**, a master craftsman...., a builder of many wonderous things to enrich mankind, to make things better than they were. But can he really build tomorrow's machines? Can he even build today's senior projects????

The senior project is designed to marshall the resources, skills and talents of students. But how can this be done when they are challenged with projects like power supplies and burglar alarms? Why is it that schools such as U.C.S.D., Stanford and M.I.T. have such good programs and research? They use their **greatest resource** to their best advantage: **students.**

With a small amount of effort, G.W.U. could start using it's own resources. Special projects that are connected with research faculty, or with the Electronics Shop or the Computing Facility could be offered to students. Even major projects like linking the Academic Center to Tomkins Hall via micro-wave could be handled by a team of students. There are many projects to be worked on . It is also true that this involves more work than is warranted by a two credit course ( one per semester ). So why not drop some of the technical elective requirements? Another alternative is to make the project a variable credit course and award credit on the basis of the nature of each individual project. These are only some of the possibilities.

The key is to offer projects that are challenging to students and useful to the school. But the prime factor is that it is the students who want to work and put the effort in something that is meaningful. This is not for all students, but even the few should have the opportunity to leave his mark at this university.

Henry Longword

Editors Note: What da yuh say Dean??